


**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 9 of 9 returned.** 1. Document ID: US 20020102657 A1 WO 200172846 A2 AU 200152970 A

L6: Entry 1 of 9

File: DWPI

Aug 1, 2002

DERWENT-ACC-NO: 2001-611619

DERWENT-WEEK: 200253

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TITLE: New ligands binding to a specific region of a polymeric immunoglobulin receptor, useful for transporting therapeutic or diagnostic compositions into or across cells expressing pIgR e.g. in drug delivery

INVENTOR: CHAPIN, S J; MOSTOV, K E ; RICHMAN-EISENSTAT, J

PRIORITY-DATA: 2000US-192198P (March 27, 2000), 2000US-192197P (March 27, 2000), 2001US-0818247 (March 26, 2001)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20020102657 A1	August 1, 2002		000	C12P021/04
WO 200172846 A2	October 4, 2001	E	102	C07K016/28
AU 200152970 A	October 8, 2001		000	C07K016/28

INT-CL (IPC): A61 K 31/00; A61 K 31/7088; A61 K 38/00; A61 K 39/395; A61 K 47/48; A61 K 48/00; A61 P 11/00; C07 K 14/705 ; C07 K 16/28; C07 K 19/00; C12 N 5/06; C12 P 21/04

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw	Desc		Image								

 2. Document ID: CN 1290479 A

L6: Entry 2 of 9

File: DWPI

Apr 11, 2001

DERWENT-ACC-NO: 2001-375840

DERWENT-WEEK: 200140

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TITLE: Method for producing ramie hydrid by using periodic light inactivated female line

INVENTOR: ZHOU, R

PRIORITY-DATA: 2000CN-0134101 (December 4, 2000)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1290479 A	April 11, 2001		000	A01H001/02

INT-CL (IPC): A01 H 1/02

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWC
Draw Desc	Image										

## 3. Document ID: WO 200047611 A2 AU 200027597 A EP 1151000 A2

L6: Entry 3 of 9 File: DWPI Aug 17, 2000

DERWENT-ACC-NO: 2000-549134

DERWENT-WEEK: 200050

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TITLE: Novel polypeptides containing pIgR-binding domains used for targeting and transport to the mucosal epithelia, in the treatment of disorders accessible to the mucosal epithelia, e.g. asthma

INVENTOR: CAPRA, J D; HEXHAM, J M ; MANDECKI, W ; WHITE, K

PRIORITY-DATA: 1999US-119932P (February 12, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200047611 A2	August 17, 2000	E	137	C07K014/00
AU 200027597 A	August 29, 2000		000	C07K014/00
EP 1151000 A2	November 7, 2001	E	000	C07K014/00

INT-CL (IPC): C07 K 14/00; C07 K 14/705; C12 N 15/10; C12 N 15/62

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWC
Draw Desc	Image										

## 4. Document ID: US 6072041 A

L6: Entry 4 of 9 File: DWPI Jun 6, 2000

DERWENT-ACC-NO: 2000-411208

DERWENT-WEEK: 200174

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TITLE: Fusion protein useful for protein delivery to target cell especially epithelial cell, comprises single chain Fv molecule directed against transcytotic receptor covalently linked to therapeutic protein

INVENTOR: DAVIS, P B; ECKMAN, E ; FERKOL, T ; LUK, J M ; SCHREIBER, J

PRIORITY-DATA: 1997US-0957333 (October 24, 1997), 1996US-0655705  
(June 3, 1996), 1996US-0656906 (June 3, 1996)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6072041 A	June 6, 2000		024	C07K001/00

INT-CL (IPC): A61 K 38/00; C07 H 21/02; C07 K 1/00; C07 K 16/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

## 5. Document ID: EP 905237 A2 CA 2241392 A JP 11215989 A

L6: Entry 5 of 9

File: DWPI

Mar 31, 1999

DERWENT-ACC-NO: 1999-192665

DERWENT-WEEK: 199917

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TITLE: New polypeptides encoding human PIGR-2 useful for treating  
diseases such as rheumatoid arthritis and multiple sclerosis

INVENTOR: SWEET, R W; TRUNEH, A ; WU, S

PRIORITY-DATA: 1997US-0976293 (November 21, 1997), 1997US-056774P  
(August 25, 1997)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 905237 A2	March 31, 1999	E	023	C12N015/12
CA 2241392 A	February 25, 1999		000	C12N015/12
JP 11215989 A	August 10, 1999		018	C12N015/09

INT-CL (IPC): A61 K 31/00; A61 K 31/70; A61 K 38/00; A61 K 38/17;  
A61 K 39/395; A61 K 45/00; A61 K 48/00; C07 K 14/47; C07 K 14/705;  
C07 K 16/18; C07 K 16/28; C12 N 5/10; C12 N 15/09; C12 N 15/12; C12  
P 21/02; C12 Q 1/68; G01 N 33/50; G01 N 33/53; G01 N 33/564; G01 N  
33/566; C12 N 15/09; C12 R 1:91; C12 N 5/10; C12 R 1:91; C12 P  
21/02; C12 R 1:91

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

6. Document ID: EP 897981 A1 CA 2240631 A JP 11225774 A US 6020161 A US  
6232441 B1

L6: Entry 6 of 9

File: DWPI

Feb 24, 1999

DERWENT-ACC-NO: 1999-134644

DERWENT-WEEK: 199912

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TITLE: New receptor (PIGR-1) polypeptide and polynucleotide -  
useful as diagnostic reagents and for prevention and treatment of  
multiple sclerosis, inflammatory bowel disease and psoriasis

INVENTOR: HURLE, M R; SWEET, R W ; TRUNEH, A ; WU, S

PRIORITY-DATA: 1997US-0955937 (October 22, 1997), 1997US-056152P  
(August 19, 1997), 1999US-0300985 (April 28, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 897981 A1	February 24, 1999	E	028	C12N015/12
CA 2240631 A	February 19, 1999		000	C12N015/12
JP 11225774 A	August 24, 1999		019	C12N015/09
US 6020161 A	February 1, 2000		000	C12N015/00
US 6232441 B1	May 15, 2001		000	C07K014/435

INT-CL (IPC): A61 K 31/70; A61 K 35/00; A61 K 38/00; A61 K 38/17;  
A61 K 39/395; A61 K 45/00; A61 K 48/00; C07 H 21/04; C07 K 14/435;  
C07 K 14/47; C07 K 14/705; C07 K 16/18; C07 K 16/28; C12 N 5/10;  
C12 N 15/00; C12 N 15/09; C12 N 15/12; C12 P 21/02; C12 Q 1/68; G01  
N 33/564; G01 N 33/566; G01 N 33/68; C12 N 15/09; C12 R 1:91; C12 N  
5/10; C12 R 1:91; C12 P 21/02; C12 R 1:91

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KIMC
Draw Desc	Image									

7. Document ID: US 6340743 B1 WO 9746588 A1 AU 9730632 A EP 934338 A1 CN  
1221428 A US 6042833 A JP 2000511432 W AU 728587 B IL 127238 A

L6: Entry 7 of 9

File: DWPI

Jan 22, 2002

DERWENT-ACC-NO: 1998-042123

DERWENT-WEEK: 200208

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TITLE: Ligand that binds the stalk of a cell's polymeric  
immunoglobulin receptor - useful to target to, into or across  
mammalian epithelial cell biologically active component, e.g.  
nucleic acid, protein, lipid, carbohydrate, etc

INVENTOR: MOSTOV, K E; RICHMAN-EISENSTAT, J ; MOSTOV, K

PRIORITY-DATA: 1996US-018958P (June 4, 1996), 1997US-0856383 (May  
14, 1997), 1999US-0475088 (December 30, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6340743 B1	January 22, 2002		000	C07K016/28
WO 9746588 A1	December 11, 1997	E	042	C07K016/00
AU 9730632 A	January 5, 1998		000	C07K016/00
EP 934338 A1	August 11, 1999	E	000	C07K016/00
CN 1221428 A	June 30, 1999		000	C07K016/00
US 6042833 A	March 28, 2000		000	A61K038/16
JP 2000511432 W	September 5, 2000		046	C12N015/09
AU 728587 B	January 11, 2001		000	C07K016/00
IL 127238 A	July 24, 2001		000	C07K016/00

INT-CL (IPC): A61 K 38/16; A61 K 39/385; C07 K 16/00; C07 K 16/28;  
C07 K 16/46; C12 N 15/09; C12 N 15/13

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	EMC
Draw Desc	Image									

8. Document ID: FR 1503885 A

L6: Entry 8 of 9

File: DWPI

DERWENT-ACC-NO: 1968-99994P

DERWENT-WEEK: 196800

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TITLE: Manufacture of inflatable articles in plastic materials

PRIORITY-DATA: 1966FR-0080321 (October 18, 1966)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
FR 1503885 A			000	

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	EMC
Draw Desc	Image									

9. Document ID: FR 1467169 A

L6: Entry 9 of 9

File: DWPI

DERWENT-ACC-NO: 1968-80378P

DERWENT-WEEK: 196800

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TITLE: Cutting and decorating rigid or semi-rigid self

PRIORITY-DATA: 1965FR-0042167 (December 14, 1965)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
FR 1467169 A			000	

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

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**Documents**

9

**Display Format:** CIT[Change Format](#)[Previous Page](#)[Next Page](#)

# WEST Search History

DATE: Tuesday, August 27, 2002

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=PGPB; PLUR=YES; OP=ADJ</i>			
L11	polyimmunoglobulin	2	L11
<i>DB=TDDB; PLUR=YES; OP=ADJ</i>			
L10	polyimmunoglobulin	0	L10
<i>DB=JPAB; PLUR=YES; OP=ADJ</i>			
L9	L8	0	L9
<i>DB=EPAB; PLUR=YES; OP=ADJ</i>			
L8	polyimmunoglobulin	0	L8
<i>DB=DWPI; PLUR=YES; OP=ADJ</i>			
L7	polyimmunoglobulin	0	L7
L6	PIgR	9	L6
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
L5	L4.clm.	3	L5
L4	PIgR	31	L4
L3	polyimmunoglobulin	8	L3
L2	6046037.pn.	1	L2
L1	6303341.pn.	1	L1

END OF SEARCH HISTORY

**WEST****End of Result Set**[Generate Collection](#)[Print](#)

L2: Entry 1 of 1

File: USPT

Apr 4, 2000

US-PAT-NO: 6046037

DOCUMENT-IDENTIFIER: US 6046037 A

TITLE: Method for producing immunoglobulins containing protection proteins in plants and their use

DATE-ISSUED: April 4, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hiatt; Andrew C.	San Diego	CA	92103	
Ma; Julian K.-C.	London			GB
Lehner; Thomas	Barnet, Herts			GB
Mostov; Keith E.	San Francisco	CA	94116	

US-CL-CURRENT: 435/70.1; 435/320.1, 435/419, 435/468, 435/69.1, 435/69.7, 536/23.5, 536/23.53, 536/24.1, 536/24.3, 800/278

## CLAIMS:

We claim:

1. A transgenic plant cell comprising an immunoglobulin comprising a protection protein derived from an immunoglobulin receptor in association with an immunoglobulin derived heavy chain having at least a portion of an antigen binding domain.
2. A transgenic plant cell comprising a nucleotide sequence encoding a protection protein derived from an immunoglobulin receptor.
3. The transgenic plant cell of claim 2 which also comprises a second nucleotide sequence encoding at least one of the molecules selected from the group consisting of: an immunoglobulin derived heavy chain having at least a portion of an antigen binding domain, an immunoglobulin derived light chain having at least a portion of an antigen binding domain, and an immunoglobulin J chain.
4. The transgenic plant cell of claim 3 wherein said second nucleotide sequence encodes an immunoglobulin derived heavy chain having at least a portion of an antigen binding domain; and which also comprises a third nucleotide sequence encoding an immunoglobulin derived light chain having at least a portion of an antigen binding domain.
5. The transgenic plant cell of claim 4 which also comprises a fourth nucleotide sequence encoding an immunoglobulin J chain.
6. A transgenic plant cell comprising a nucleotide sequence encoding a



PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4443549	April 1984	Sadowski	
4594244	June 1986	Lehner et al.	
4607388	August 1986	Koiyumaki et al.	
4652448	March 1987	Sadowski	
4736866	April 1988	Leder et al.	
4870009	September 1989	Evans et al.	
4873191	October 1989	Wagner et al.	
5034322	July 1991	Rogers et al.	
5183756	February 1993	Schlom	
5188642	February 1993	Shah et al.	
5349124	September 1994	Fischhoff et al.	
5352440	October 1994	Gilchrest et al.	
5352446	October 1994	Lehner	424/150.1
5352605	October 1994	Fraley et al.	

## FOREIGN REFS GROUP (TEST)

480014B1 19911000 EP  
 484 148 A1 19920500 EP  
 0 371 017 B1 19940900 EP  
 WO 87/00551 19870100 WO  
 WO 90/14430 19901100 WO  
 WO 91/06320 19910500 WO  
 WO 91/16061 19911000 WO

## FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
480014B1	October 1991	EP	
484 148 A1	May 1992	EP	
0 371 017 B1	September 1994	EP	
WO 87/00551	January 1987	WO	
WO 90/14430	November 1990	WO	
WO 91/06320	May 1991	WO	
WO 91/16061	October 1991	WO	

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During et al. Synthesis and self-assembly of a functional monoclonal antibody in transgenic *Nicotiana tabacum*. Plant Molecular Biology 15: 281-293, 1990.  
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ART-UNIT: 169

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ABSTRACT:

The immunoglobulins of the present invention are useful therapeutic immunoglobulins against mucosal pathogens such as S. mutans. The immunoglobulins contain a protection protein that protects the immunoglobulins in the mucosal environment.

The invention also includes the greatly improved method of producing immunoglobulins in plants by producing the protection protein in the same cell as the other components of the immunoglobulins. The components of the immunoglobulin are assembled at a much improved efficiency. The method of the invention allows the assembly and high efficiency production of such complex molecules.

The invention also contemplates the production of immunoglobulins containing protection proteins in a variety of cells, including plant cells, that can be selected for useful additional properties. The use of immunoglobulins containing protection proteins as therapeutic antibodies against mucosal and other pathogens is also contemplated.

24 Claims, 1 Drawing figures

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L2: Entry 1 of 1

File: USPT

Apr 4, 2000

US-PAT-NO: 6046037

DOCUMENT-IDENTIFIER: US 6046037 A

TITLE: Method for producing immunoglobulins containing protection proteins in plants and their use

DATE-ISSUED: April 4, 2000

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DATE FILED: May 4, 1995

## PARENT-CASE:

CROSS REFERENCE TO RELATED APPLICATIONS This is a continuation-in-part of application Ser. No. 08/367,395 filed Dec. 30, 1994, now abandoned, which is hereby incorporated by reference.

INT-CL: [07] C12 N 15/00, C12 N 15/29, C12 N 15/82, A01 H 4/00

US-CL-ISSUED: 435/70.1; 435/69.1, 435/69.7, 435/70.23, 435/320.1, 435/419, 435/468, 800/278, 536/24.3, 536/23.5, 536/23.53, 536/24.1

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FIELD-OF-SEARCH: 800/205, 800/DIG.24, 800/DIG.40, 800/DIG.43, 800/278, 435/69.1, 435/69.7, 435/70.21, 435/172.3, 435/240.4, 435/320.1, 435/70.1, 435/70.23, 435/419, 435/468, 536/23.4, 536/23.5, 536/23.53, 536/24.1

## PRIOR-ART-DISCLOSED:

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protection protein and a nucleotide sequence encoding an immunoglobulin derived heavy chain having at least a portion of an antigen binding domain.

7. A transgenic plant cell comprising a protection protein derived from an immunoglobulin receptor.

8. The transgenic plant cell of claim 7 which also comprises at least one additional molecule selected from the group consisting of: an immunoglobulin derived heavy chain having at least a portion of an antigen binding domain, an immunoglobulin derived light chain having at least a portion of an antigen binding domain, and an immunoglobulin J chain.

9. The transgenic plant cell of claim 8 wherein said additional molecule is an immunoglobulin derived heavy chain having at least a portion of an antigen binding domain; and which also contains an immunoglobulin derived light chain having at least a portion of an antigen binding domain.

10. The transgenic plant cell of claim 7 which also contains an immunoglobulin J chain.

11. The transgenic plant cell of claims 1 or 6 wherein said transgenic plant cell is derived from a dicotyledonous or monocotyledonous plant.

12. The transgenic plant cell of claims 1 or 6 wherein said transgenic plant cell is derived from a solanaceous plant.

13. The transgenic plant cell of claims 1 or 6 wherein said transgenic plant cell is alfalfa cell.

14. The transgenic plant cell of claims 1 or 6 wherein said transgenic plant cell is derived from a tobacco plant.

15. The transgenic plant cell of claims 1 or 6 wherein said transgenic plant cell is part of a plant.

16. The transgenic plant cell of claim 1 wherein the immunoglobulin further comprises an immunoglobulin derived light chain having at least a portion of an antigen binding domain associated with said immunoglobulin derived heavy chain.

17. The transgenic plant cell of claim 16 wherein the immunoglobulin further comprises a second immunoglobulin derived heavy chain having at least a portion of an antigen binding domain associated with said protection protein derived from an immunoglobulin receptor.

18. The transgenic plant cell of claim 17 wherein the immunoglobulin further comprises a second immunoglobulin derived light chain having at least a portion of an antigen binding domain bound to said second immunoglobulin derived heavy chain.

19. The transgenic plant cell of claim 18 wherein the immunoglobulin further comprises immunoglobulin J chain bound to at least one of said immunoglobulin derived heavy chains.

20. The transgenic plant cell of claims 1 or 16 or 17 or 18 wherein said immunoglobulin is a therapeutic immunoglobulin.

21. The transgenic plant cell of claim 20 wherein said therapeutic immunoglobulin binds to mucosal pathogen antigens.

22. The transgenic plant cell of claim 20 wherein said therapeutic immunoglobulin is capable of preventing dental caries.

23. The immunoglobulin of claims 15 or 17 or 18 or 19 or 20 or 21 or 22 wherein said antigen binding domain is capable of binding an antigen from *S. mutans* serotypes c, e and f.

24. The immunoglobulin of claims 15 or 17 or 18 or 19 or 20 or 21 or 22 wherein said antigen binding domain is capable of binding an antigen from *S. sobrinus* serotypes d and g.